

Incident Risk Assessment Worksheet					1. Incident Name/Number	2. Location			
Identification of Hazards and Risk Assessment					Klondike West OR-RSF-000354	Klondike West Zone, Oregon (Agness, OR)			
					3. Name and Title of Analyst	4. Date			
Michael Cook, Brad Lidell & Ivan Cupp					Tuesday, September 11, 2018				
5. Pre-Control					6. Control or Abatement Action (Engineering, Administrative, PPE, Avoidance, Education, etc)	7. Post-Control			
8. Location	9. Hazard	10. Hazard Probability	11. Severity Code	12. RAC	Actions (double-click in cell then click alt + enter to add a line)	13. Hazard Probability	14. Severity Code	15. RAC	16. Acceptable (Yes/No)
All	Helicopter Operations	Likely B	Catastrophic I	Critical	- Stay clear of all bucket drops when suppression actions are in place and allow 1 minute prior to re-entry. - Ensure a ground contact is identified and relayed to ATGS and/or the responding air resources. - Monitor A-G communications. - Follow aviation safety guidelines in IRPG (Blue pages) and IHOG.	Rarely D	Catastrophic I	Moderate	No
All Divisions and Groups	ATV/UTV use	Occasional C	Catastrophic I	Serious	- Ensure equipment is inspected and safe to use. - Restrict UTV's to max width of 50' on ATV trails due to width and severe sloped conditions. - Ensure operator is trained and certified to operate. - All riders must have a manufacturer's provided seat and seatbelt. - Ensure operator and other riders have proper PPE according to the Redbook and/or RMA... Meet forest helmet requirements. - Question if it is mission critical.	Occasional C	Critical II	Moderate	Yes
All Divisions and Groups	Driving & Traffic	Frequently A	Catastrophic I	Critical	- Practice "Defensive Driving" techniques traveling on all roads and city streets. - Use spotters when backing. - Honk horn to alert personnel when backing. - Keep clutter off dash and inside cab. - Follow Driving LCES (Lights, Chock blocks, Emergency brake, Seat belts. - Always use headlights. - Yield to pedestrians and bicycles. - Observe posted speed limits. - Use the 3 second rule for following distance when driving. - Use chock blocks, turn wheels into hill. - Avoid distractions (eating, cell phones, radio). - Ensure that windshields are kept clean of dust and bugs. - Review vehicle Road Construction procedures in IAP, travel at accepted speed limits and defensively. - Assess road conditions for wet or slick conditions to avoid accidents or resource damage. - Use tactical broadcast for roads identified in division 204 special instructions.	Occasional C	Critical II	Moderate	Yes
All Divisions and Groups All Road Ways	Steep Terrain & Rolling Debris	Frequently A	Critical II	Critical	- Maintain 8'-10' spacing when working & walking. - Don't work above any personnel. - Be on the lookout for rolling rocks, debris, or burning material. - Evaluate necessity to send personnel in areas with limited access. - Post lookouts (IRPG pg 7.) - Utilize Risk Management Process, IRPG Pg 1.	Occasional C	Critical II	Moderate	Yes
All Divisions and Groups	Wildlife & Livestock	Occasional C	Critical II	Moderate	- Watch out for wildlife & livestock inside fire area and along roadways. - Clean up all debris and trash during each operational period to avoid attracting wildlife and livestock. - If possible and time allows have livestock owners move livestock from fire area.	Occasional C	Critical II	Moderate	Yes
All Divisions and Groups	Hazard Trees	Likely B	Catastrophic I	Critical	- Identify and avoid snags. Removal should be with falling module or equipment. - Follow "Hazard Tree Safety" guidelines, IRPG page 22-23. - Mitigate hazards by flagging off or removing dangerous snags. - In areas that work must be performed, post lookout or spotter, especially in mop-up areas. - Don't park vehicles or take breaks in high concentrations of hazard trees. - Establish trigger points for disengagement during high wind events. - Remember that the hazard zone extends a minimum of 2-1/2 tree heights.	Occasional C	Critical II	Moderate	Yes
KK, II, Stucture, Camps & ICP	Power Utilities	Likely B	Significant III	Moderate	- Notify all personnel of down electrical lines. - Refer to the IRPG page 24-25 for Power Line Safety. - Always treat downed wires as energized. - Identify and avoid high tension transmission lines. - Identify and avoid high pressure natural gas lines. - Identify and avoid damaged gas service near structures. - Be aware of utility restoration in your work area.	Rarely D	Critical II	Minor	Yes
All Divisions and Groups	Heavy Equipment Operations	Occasional C	Catastrophic I	Serious	- Ensure communications are established with operators. - Use hand signals if other communications are unavailable. - Maintain a 50'-100' exclusion area around equipment and increase it to 1-1/2 times tree height when in timber. - Use a spotter when backing. - Avoid working below heavy equipment. - Assess road surface for wet or slick conditions to avoid accidents or resource damage - Scout access route prior to committing towboy vehicle to unpaved roads.	Rarely D	Critical II	Minor	Yes
All Divisions and Groups	Unplanned Public Interaction	Occasional C	Critical II	Moderate	- Be alert to non-fire personnel in areas with suppression personnel. - All non-fire personnel will be escorted while on fireline. - Post lookouts to in areas with public to avoid conflicts with mission tasks. - Ensure adequate signage/barricades are placed on all access roads that are closed to the public. - Ensure sufficient security to restrict access to exclusion area.	Rarely D	Critical II	Minor	Yes
All Divisions and Groups	Medical Extraction (ground >3 hours)	Likely B	Critical II	Serious	- Utilize the Medical Incident Report to request medical transportation and to relay vital medical information to dispatch. - Identify approved adequate extraction points and reassess, as needed. - Ensure adequate ALS is in appropriate locations to respond. - Consider air extraction, if available.	Rarely D	Critical II	Minor	Yes
All Divisions and Groups	Heat Related Illness (HRI)& Dehydration	Rarely D	Catastrophic I	Moderate	- Drink Fluids throughout operational period (6-8 qts/shift). - Maintain water/electrolyte ratio of 3 to 1. - Carry extra water on line and cache water at drop points. - Take Frequent breaks, minimum of 10 minutes every hour. - Allow out of area resources time to acclimatize before expecting peak performance. - Recognize symptoms of HEAT RELATED ILLNESS which include. o Lack of energy o Headaches, dizziness o Lack of rest o No hunger, poor eating habits o Hot skin, and lack of sweating	Rarely D	Critical II	Minor	Yes
KK, MM	Indirect Fireline	Likely B	Critical II	Serious	- Post lookouts, identify escape routes and safety zones (IRPG pg. 7). - Review "Strategy/Indirect Attack" (IRPG pg. 83).	Likely B	Significant III	Moderate	Yes
EE, GG, HH	Firing Operations & Devices	Likely B	Critical II	Serious	- Only personnel trained in the use of each device will be authorized to use firing equipment. - Ensure all personnel are aware of firing operation that may affect them. - Wear appropriate PPE. - Ensure aerial/ground ignition plans have been adequately developed and personnel are briefed. - Maintain LCES.	Likely B	Significant III	Moderate	Yes
Spike Camps	Spike Camp	Likely B	Significant III	Moderate	- Keep a clean camp. - Ensure communications are in place. - Review and observe "Line Spike" considerations (IRPG pg. 95).	Likely B	Significant III	Moderate	Yes
All Divisions and Groups	Fireline Hazards	Likely B	Critical II	Serious	- Do not work directly above or below personnel during firing and mop-up operations. - Watch for falling and rolling debris on steep slopes. - Alert crew personnel of rolling debris by yelling to affected individuals. - Position debris that could roll vertically on slope. - Avoid stepping over debris that could roll by walking around object. - Avoid radiant heat by wearing appropriate PPE correctly. - Use correct tool for task assigned. - Follow power line safety protocol as outlined on page 24 in IRPG. - Flag and isolate all HAZMAT and alert all personnel working in Division. - Follow WUI recommendations on page 12-13 in IRPG.	Likely B	Significant III	Moderate	Yes
All	Firefighter & Public Smoke Exposure	Likely B	Significant III	Moderate	- Review and follow Smoke Hazards and Mitigation, IRPG Pg 30 and Smoke and Transportation Safety, IRPG Pg 31. - Identify homes and structures with private parties remaining behind the evacuation. - Identify personnel responsible for contacting private parties. - Use warning lights and provide traffic control on roadways during smoky and night operations. - Rotate crews out of smoky areas during firing and mop-up operations. - Contact Communications when firing operations are initiated. - Slow down use defensive driving and ensure lights are on.	Likely B	Significant III	Moderate	Yes
All Divisions and Groups	Line Construction	Likely B	Critical II	Serious	- Ensure lookouts have a good view of resources constructing line and the fire. - Follow downhill checklist. - Utilize good anchor points. - Utilize cup trenches, as necessary. - Patrol line. - Reassess safety zones and escape routes. - Follow IRPG Pgs 9 & 84.	Occasional C	Significant III	Minor	Yes
All Divisions and Groups	Chain Saw Operations	Frequently A	Critical II	Critical	- Follow "Hazard Tree Safety" guidelines, IRPG page 22-23. - Look up, Look down, Look around for hazard tree indicators. - Only fell and buck trees within your expertise, and training. - Follow "Procedural Felling Operations" on page 85 in IRPG. - Do not fall trees during high wind events. - Ensure proper use of all required PPE.	Occasional C	Significant III	Minor	Yes
All Divisions and Groups	Heavy Dead & Down Fuel Loading	Occasional C	Critical II	Moderate	- Watch footing. - Allow for additional time to reach safety zones. - Post lookouts (IRPG pg. 7).	Occasional C	Significant III	Minor	Yes
All	Personal Hygiene	Occasional C	Significant III	Minor	- Don't share personal items such as water bottles, communication devices, and eating utensils. - Wash hands before meals and after use of rest room facilities.	Occasional C	Significant III	Minor	Yes
All Divisions and Groups	Mines	Occasional C	Significant III	Minor	- Inquire local resources for information on location and specifics on all mining operations. - Patrol line.	Occasional C	Significant III	Minor	Yes
HH, KK, PP	Mop-up & Rehab	Occasional C	Significant III	Minor	- Assess safety zones and escape routes frequently. - Wear PPE, including protection for eyes. - Assess hazard trees and avoid or remove with falling module or equipment. - Be alert for ash pits, stump holes, hot embers and rocks.	Occasional C	Significant III	Minor	Yes
All Divisions and Groups	Night Operations	Likely B	Significant III	Moderate	- All resources should see their assigned areas in the daylight. - Adequate briefing to include all hazards not recognized at night. - Be very alert to areas of hazard trees. - Never work alone. Periodically check on personnel (accountability), especially driving.	Occasional C	Significant III	Minor	Yes
All Divisions and Groups	Poisonous Plants	Occasional C	Significant III	Minor	- Identify and avoid poison oak. - Launder clothing. - Shower frequently.	Occasional C	Significant III	Minor	Yes
All Divisions and Groups Helibase	Pumps	Likely B	Significant III	Moderate	- Always wear appropriate hearing protection. - Position personnel far enough away from pump to hear instructions on radio. - Keep all fuel >4' from creek and pump to reduce fire hazard and spill. - Rotate personnel every hour to limit exposure to high decibels of sound from pump. - Allow pumps to cool for 5 minutes prior to re-fueling to reduce fire hazard.	Occasional C	Significant III	Minor	Yes
All Divisions and Groups	Mid-slope Fireline	Occasional C	Significant III	Minor	- Utilize cup trenches, as necessary. - See IRPG, Pg 84, Line Construction.	Occasional C	Significant III	Minor	Yes
All Divisions and Groups	Initial Attack	Likely B	Critical II	Serious	- If delegated or requested - Follow IA procedures - Provide local briefing for local protocols. - Coordinate with Operations - See IRPG front cover for Size Up Report.	Occasional C	Significant III	Minor	Yes
All Divisions and Groups	Downhill Line Construction	Occasional C	Critical II	Moderate	- Ensure lookouts have a good view of resources constructing line and the fire. - Follow downhill checklist. - Utilize good anchor points. - Utilize cup trenches, as necessary. - Patrol line. - Reassess safety zones and escape routes. - Follow IRPG Pgs 9 & 84.	Occasional C	Significant III	Minor	Yes
All Divisions and Groups	Safety Zones are being constructed	Occasional C	Critical II	Moderate	- Recognize the need for a safety zone. - Follow guidelines in IRPG, pg. 8.	Occasional C	Significant III	Minor	Yes
II, KK, ICP, Camps, Structure,	Structure Protection & HAZMAT	Occasional C	Critical II	Moderate	- Review "Wildland Urban Interface" Watch outs, IRPG page 12. - Use "Structure Assessment" checklist, IRPG pages 13-16. - Follow "HAZMAT Incident Operations", IRPG, Pgs 36-41.	Occasional C	Significant III	Minor	Yes
All Divisions and Groups	Unburned Area/Reburn Potential	Likely B	Significant III	Moderate	- Monitor weather. - Base actions upon observed and predicted fire behavior. - LCES Checklist (IRPG pg. 7). - Look Up, Down and Around (IRPG pg. 3-4).	Occasional C	Significant III	Minor	Yes
All Divisions and Groups	Illicite and Legal Marijuana Grow Operations	Occasional C	Critical II	Moderate	- Recognize the indicators of a grow operation. - Avoid the entire area of the operation, if possible. - Contact Communications to notify LOFR or SECM that law enforcement is needed. - Anticipate possible hostile and armed individuals.	Occasional C	Significant III	Minor	Yes
All	Bees, Ticks, Mosquitoes	Frequently A	Catastrophic I	Critical	- Canvas crew members for those with known allergic reactions to stings. - Ensure crew members have medication pens if needed. - Perform daily self inspection. - Use repellent as necessary. - Advanced Life Support, multi-dose epi and airway protection. - Keep affected area clean and bandaged. - Be extra careful when eating and/or drinking to avoid stings to mouth and throat.	Occasional C	Significant III	Minor	Yes
All Divisions and Groups Helibase	Lack of or Incorrect Use of PPE	Occasional C	Critical II	Moderate	- Always wear appropriate PPE which includes: o Eye Protection o Hard Hat o Gloves o 8" Leather non-skid boots o Always wear all nomex o Fire Shelter o Hearing protection when working around chainsaws, pumps, and heavy equipment. - Additional PPE as dictated by local conditions and environment.	Rarely D	Significant III	Negligible	Yes
All Divisions and Groups	Span of Control / Lack of Supervision	Occasional C	Critical II	Moderate	- Continue to place orders, even after frequent Unable to Fill, for middle management positions, i.e Taskforce Leaders. - Designate these ordered positions as a "critical need" on the ICS 209. - Accept competent trainees in lieu of fully qualified until position is filled. - Assign up to 2 trainees under a fully qualified in nearby area for a short duration. - Utilize other fully qualified overhead for a short duration, such as Safety Officers.	Rarely D	Significant III	Negligible	Yes
ICP/Base Camp	ICP Protection	Rarely D	Significant III	Negligible	- Follow ICP Tsunami evacuation plan. - Use pedestrian cross walks to cross roads and be alert for traffic when walking in town.	Rarely D	Significant III	Negligible	Yes
All Divisions Helibase	Air Operations	Occasional C	Catastrophic I	Serious	- Follow " Aviation Watch-Out Situations" on IRPG, page 46. - Don't plan on air resources for medical transport or resupply. - Refer to page 58, IRPG for directing bucket drops - Ensure positive communication with all air resources.	Rarely D	Significant III	Negligible	Yes
All	Fatigue & Over Exertion	Occasional C	Critical II	Moderate	- Drink 1 quart of water each hour during and after work. - Rotate crews out of smoky areas. - Set a reasonable work pace and allow adequate rest breaks while on the project. - Stagger work crews start time to limit fatigue. - Use buddy system to monitor personnel of heat related and fatigue issues. - Follow work / rest guidelines. - Minimize personnel extensions to UTF positions; order fresh resources to reduce fatigue.	Rarely D	Significant III	Negligible	Yes